

Amendments to the Specification:

Please replace the paragraph beginning at page 4, line 1 which starts with “Part of the atomic hydrogen . . .” with the following amended paragraph:

Part of the atomic hydrogen thus produced is received in an aperture 19 in a plug 21 of Teflon or other suitable material having an outer diameter of 5-25 mm, where the aperture 19 has a selected diameter (e.g.,  $d(\text{ap}) \approx 1$  mm), has a selected length (e.g., 5-25 mm, or greater if desired), and connects the precursor chamber 15 with a target chamber 23 and associated vacuum pump 25 that contains a collection of CNTs d7, assembled in an array on a substrate 29, such as  $\text{CaF}_2$ . The substrate 29 is located adjacent to an aperture exit AE of the aperture 19, is oriented substantially perpendicular to the particle flow direction within the aperture at the aperture exit, and coated with purified CNTs. At appropriate time intervals, the substrate 29 can be removed from the target chamber 23 to harvest the functionalized CNTs. Purity of the CNTs used here is monitored using transmission electron microscopy which verifies that troublesome substances, such as Fe nano-particle, are removed by the purification process (described in Khare et al., Nano Lett. Vol. 2 (2002) pp. 73-77, incorporated by reference herein).

Please replace the paragraph beginning at page 8, line 17 which starts with “Another method of suppressing transport of uv radiation from the precursor chamber 15 to the target chamber 23 is illustrated in Figure 6.” with the following amended paragraph:

Another ~~method~~ system 11' of suppressing transport of uv radiation from the precursor chamber 15 to the target chamber 23 is illustrated in Figure 6. An elongated aperture 19' in a plug 21' is provided with a curvilinear central axis CA' having substantial curvature, rather than with the linear or straight axis illustrated in Figure 1, so that no radiation, and more particularly no uv. Radiation, can travel in a single straight line in moving from the precursor chamber 15 to the target chamber 23. Optionally, where the aperture axis is linear or curvilinear, part or all of the interior or side walls of the aperture 19' are lined with a substance 22 that absorbs uv. Radiation and that, in response to such absorption either (i) does not emit radiation or (ii) emits only radiation at infrared or lower energies that do not cause C-H or C-C bond breakage in CNTs or functionalized CNTs.

Please replace the paragraph beginning at page 8, line 28 which starts with "Another method of suppressing transport of uv radiation from the precursor chamber 15 to the target chamber 23 is illustrated in Figure 7." with the following amended paragraph:

Another ~~method~~ system 11" of suppressing transport of uv radiation from the precursor chamber 15 to the target chamber 23 is illustrated in Figure 7. An elongated aperture 19" is provided with a central axis CA" that includes two or more linear (or curvilinear) segments that are joined together at one or more bend points BP, at each of which the directions of the two contiguous segments are substantially different. With this configuration, no radiation (ultraviolet or other wise) can travel in a single straight line in moving from the precursor chamber 15 to the target chamber 23. Again, part or all of the interior or side walls of the aperture 19" are lined with a substance 22 that absorbs uv. Radiation and that, in response to

such absorption, either (i) does not emit radiation or (ii) emits only radiation at infrared or lower energies that do not cause C-H or C-C bond breakage in CNTs or functionalized CNTs.